MOTION NO. M2013-101
Software Development and System Integration Services for the Regional Data Services project

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:	PHONE:
Operations and Administration Committee	11/21/2013	Final Action	Brian McCartan, Executive Director, Finance and Information Technology	206-398-5100
			De Meyers, Transit Rider Technologies Program Manager	206-398-5199
			Barbara Brown, Senior IT Project Manager	206-398-5451

PROPOSED ACTION

Authorizes the chief executive officer to execute a three-year contract with two one-year options to extend with Cambridge Systematics for software development and system integration services for the Regional Data Services project within the Research and Technology Program for a total authorized contract amount not to exceed $1,043,375.

KEY FEATURES SUMMARY

- Sound Transit's Research and Technology program includes a project to develop a regional data system called Regional Data Services (RDS). This project will expand and automate collection and publication of regional transit data by compiling accurate, reliable data from Sound Transit's partner agencies and internal Sound Transit sources.
- The data compiled by the RDS project will be used for Sound Transit website applications, including the OneBusAway application, an improved Trip Planner, and real-time information at stations through digital signage. The data will also be provided to third-party developers for use in creating mobile applications to benefit transit riders.
- Under this contract, Cambridge Systematics will perform the following work:
  o Implement an Open Trip Planner application programming interface (API).
  o Create a developer portal to allow third-party developers to access data to create applications
  o Create a data processing engine for partner agency data feeds
  o Integrate the RDS with the OneBusAway API
  o Develop an issues management system
- The contract includes maintenance and enhancements for three years, with options to extend an additional two years. The amount requested covers the three year contract and the two one-year options.

BACKGROUND

The Research and Technology Program was created to assess and implement new transit technologies to improve the Agency's operational effectiveness and efficiency. This program focuses on system-wide security and safety technology, real-time service information and passenger communications, and deploying applications to better manage operations. The ST2 Research and Technology Program Phase 1 (2012-2015) focuses on developing and deploying Transit Rider Technologies to improve the customer experience. $9 million is budgeted for Phase 1 projects.

As a first step to implementing Sound Transit's Research and Technology (R&T) strategic plan, the OneBusAway data processing, API, and website hosting transitioned from the University of Washington to Sound Transit.

The contract scope includes development of the RDS data engine which collects and analyzes data along with the APIs for One Bus Away and the trip planning application on Sound Transit's website. The RDS will also support real-time on maps, real-time arrival information for OneBusAway, and real-time information at transit stations through digital signage.   APIs allow Sound Transit to deliver the backend features for these applications internally and externally to support customer application development.

The scope also includes the creation of a developer portal available to the private sector development community, to offer tools and support, as well as a forum for discussion and issues management. This portal will allow developers who use the data to communicate with each other about issues that they have using the data, and also to provide feedback to Sound Transit about data quality and other issues. Sound Transit will then be able to provide the feedback to the appropriate transit agency, and work with the agencies to improve the overall data quality. This system closely resembles the very successful developer program run by TriMet in Portland, Oregon. Using TriMet data, independent developers have created nearly 60 mobile transit applications for that area. These applications are provided at no cost to the transit agency.

In May 2013, Sound Transit issued a Request for Proposals (RFP) for software development and integration services. Seven proposals were submitted and Cambridge Systematics was selected as the most qualified firm to provide the requested services.

FISCAL IMPACT

The 2013 TIP for Research and Technology is $14,856,000. The budget is separated into an Operating Costs budget and a Capital Costs budget. The Operating Costs budget is $3,506,000 and the Capital Costs budget is $11,350,000. The Capital Costs budget is grouped into four types, Program Administration, Current, Future and Phase 1 projects. Funding for this action comes from the Capital Costs budget for Phase 1 Projects.

The total Capital Costs and Operating budgets for Phase 1 Projects is $9,000,000, of which $7,850,000 is set aside for capital projects. Within that amount, the Regional Data System project is assigned a Lifetime Budget of $2,870,150. The proposed action would commit $1,043,375 for this project, leaving a remaining budget balance of $6,199,040 for Phase 1 capital projects, and $1,524,638 for the RDS Project.

This action is within the adopted budget and sufficient monies remain after approval of this action to fund the remaining work in the RDS project as contained in the current cost estimates.

Regional Data System (RDS)

Phase 26 - Research and Technology	2013 TIP	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
OPERATING COSTS					
Current Projects	514	282		282	232
Future Projects	1,084	-		-	1,084
Phase 1 Projects	1,150	321		321	829
Program Administration	758	192		192	566
CAPITAL COSTS					
Current Projects	1,855	1,755		1,755	100
Future Projects	1,645	-		-	1,645
Phase 1 Projects	7,850	608	1,043	1,651	6,199
TOTAL CURRENT BUDGET	**14,856**	**3,157**	**1,043**	**3,406**	**7,944**

SUB PROJECT DETAIL
Regional Data System

	2013 TIP	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Regional Data System	2,870	302	1,043	1,346	1,525
RDS Unallocated Contingency		-	-	-	-
Total Sub Project Budget	**2,870**	**302**	**1,043**	**192**	**566**

CONTRACT DETAIL Cambridge Systematics	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Contract Amount	-	-	1,043	1,043
Contingency Amount	-	-	-	-
Total Not to Exceed Value	**-**	**-**	**1,043**	**1,043**
Percent Contingency	0%	0%	0%	0%

Notes:

Amounts are expressed in Year of Expenditure $000s.

Board Approvals = Expenditures up to Aug 31 + Committed To-Date

2013 TIP = Project budget located on page 107 of 206 of the Adopted 2013 Transit Improvement Plan (TIP)

SMALL BUSINESS PARTICIPATION

Small Business Goals
Sound Transit Goal: 5%
Commitment: 33%

Allocation of the 33% Small Business Commitment between Conveyal and LH Formation will be determined when the specific services required by Sound Transit are more clearly defined.

Subconsultant/Subcontractor	Business Type	% of Work	Amount
Conveyal	Small Business	TBD	$
LH Formation, LLC	Small Business	TBD	$
Total			

EQUAL EMPLOYMENT WORKFORCE PROFILE

256 employees; 42.2% women; 23.4% minorities.

PUBLIC INVOLVEMENT

Not applicable to this action.

TIME CONSTRAINTS

The RDS project is the foundation for most of the other projects identified in the Board-approved Research & Technology strategic plan. Delays in the RDS will delay each of these projects accordingly.

PRIOR BOARD/COMMITTEE ACTIONS

Motion No. M2012-45: Approved Phase 1 of the ST2 Research and Technology Program to implement improved transit customer rider technologies.

ENVIRONMENTAL REVIEW

JI 9/16/2013

LEGAL REVIEW

BN 11/1/2013

MOTION NO. M2013-101

A motion of the Operations and Administration Committee of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a three-year contract with two one-year options to extend with Cambridge Systematics for software development and system integration services for the Regional Data Services project within the Research and Technology Program in the amount of $820,680 with a 15% contingency of $123,102, for a total authorized contract amount not to exceed $943,782.

BACKGROUND:

The Research and Technology Program was created to assess and implement new transit technologies to improve the Agency's operational effectiveness and efficiency. This program focuses on system-wide security and safety technology, real-time service information and passenger communications, and deploying applications to better manage operations. The ST2 Research and Technology Program Phase 1 (2012-2015) focuses on developing and deploying Transit Rider Technologies to improve the customer experience. $9 million is budgeted for Phase 1 projects.

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The contract scope includes development of the Regional Data Services (RDS) data engine which collects and analyzes data along with the application programming interfaces (APIs) for One Bus Away and the trip planning application on Sound Transit's website. The RDS will also support real-time on maps, real-time arrival information for OneBusAway, and real-time information at transit stations through digital signage. APIs allow Sound Transit to deliver the backend features for these applications internally and externally to support customer application development.

The scope also includes the creation of a developer portal available to the private sector development community, to offer tools and support, as well as a forum for discussion and issues management. This portal will allow developers who use the data to communicate with each other about issues that they have using the data, and also to provide feedback to Sound Transit about data quality and other issues. Sound Transit will then be able to provide the feedback to the appropriate transit agency, and work with the agencies to improve the overall data quality. This system closely resembles the very successful developer program run by TriMet in Portland, Oregon. Using TriMet data, independent developers have created nearly 60 mobile transit applications for that area. These applications are provided at no cost to the transit agency.

In May 2013, Sound Transit issued a Request for Proposals (RFP) for software development and integration services. Seven proposals were submitted and Cambridge Systematics was selected as the most qualified firm to provide the requested services.

The contract includes maintenance and enhancements for three years, with options to extend an additional two years. The amount requested covers the three year contract and the two one-year options. The 15% contingency will help Sound Transit deal with unknown challenges in implementation due to the project's many dependencies, the new architecture design, and overall complexity of scope.

MOTION:

It is hereby moved by the Operations and Administration Committee of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a three-year contract with two one-year options to extend with Cambridge Systematics for software development and system integration services for the Regional Data Services project within the Research and Technology Program in the amount of $820,680 with a 15% contingency of $123,102, for a total authorized contract amount not to exceed $943,782.

APPROVED by the Operations and Administration Committee of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on November 21, 2013.

Paul Roberts
Operations and Administration Committee Chair

ATTEST:

Marcia Walker
Board Administrator